RNG PILOT PROGRAM FOR UTILITY-OWNED CNG STATIONS

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RNG PILOT PROGRAM BACKGROUND

- Approved via Advice Letter 5295 to CPUC in July 2018
- RNG offers solicited via RFO process in September 2018
- Requested 1 to 3 year commitment
- Create Renewable Identification Numbers (RINs) via the U.S. EPA Renewable Fuels Standard (RFS) program and Low Carbon Fuel Standard (LCFS) credits by matching RNG production with NGV consumption
- Share in environmental credit (RINs and LCFS) value creation

BENEFITS OF RNG PILOT PROGRAM

- Reduce greenhouse gas (GHG) emissions
- Reduce CNG pump price
- Capture methane from existing organic waste streams
- Learn about sources of RNG and contracting particulars

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ENVIRONMENTAL CREDITS AND CAP & TRADE REDUCTIONS PROCESS

- Environmental Credits (RINs, LCFS)
  - Pair RNG injections with CNG throughput

- Reduction in cap & trade obligation
  - Verified new or incremental RNG supply

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MANAGING VARIABLE RNG PRODUCTION / RINs

Issue: How to address variable RNG production for RFS program?

Proposed Solution: developing draft storage protocol with EPA

1. Track monthly RNG injections
2. Store injected RNG that is in excess of monthly dispersals
3. Pair stored gas at a later date

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MANAGING VARIABLE RNG PRODUCTION / LCFS

Issue: How to address variable RNG production for LCFS program?

Solution: Air Resources Board's "book and claim" approach

1. Monitor quarterly RNG injections and withdrawals from storage

2. Pair during current quarter or in following two quarters

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LESSONS LEARNED

- There are potentially two types of RNG transactions
  - Environmental credits only
  - Physical gas with environmental credits
- Both transaction types facilitate/encourage RNG injections
- Book and claim approach enables buyers and sellers to reach more counterparties
- Complexity of transactions
- Lack of RNG index reduces price transparency

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